8th Grade, Lewis County Middle School NTI Day 11

Contents:

- **Language Arts**
- **Math**
- **Science**
- **Social Studies**

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Argumentative Writing Practice 1 - Day 11 - 100 points

Use SPAT to analyze the prompt.
Highlight the situation in yellow.
Underline the purpose.
Make the **audience bold**.
Put the *task in italics*.

Writing Situation
Your school has to decide whether to renew its contract with the company which provides the computerized program for tracking students' reading. Some members of the school council are asking if the program is a good idea. The school council has asked students who are interested to submit letters electronically expressing their views about the program.

Writing directions
Decide whether you think computerized reading programs should be used in your school. Write an e-mail to the school council to present an argument to support your stance and develop your claims. Provide reasons and details to support your argument

Pick a side (and stick to it!)
How do you choose a side? Choose the side of the argument that you can support the best with SMARTIES regardless of whether you personally agree with it.

One good way to do that is to use your resources! Read the passage that goes along with this prompt and highlight the evidence FOR using computerized programs in yellow and the evidence AGAINST in green.

Do computerized programs help students become better readers?

During the past 15 years, computerized reading comprehension programs (having students take a test after reading a book) have swept the nation. Two of the most common programs are Renaissance Reading and Accelerated Reader. The programs claim to increase the number of books that students read. The programs further claim that the more students read, the better they will read. Having students take tests on the computer reduces work for teachers. Most programs include an assessment test that identifies students' reading levels. Students' test scores are stored and tracked by the program. Some programs also claim to help students acquire technological expertise. On the other hand, such programs have been criticized. Some critics say that schools have placed too much emphasis on these programs. In some cases, actual reading comprehension instruction has been replaced by computerized tests. Some opponents also say that forcing students to take tests and counting the tests as a significant portion of a grade makes students learn to hate reading. Some critics have also questioned counting one test as a significant portion of a student's grade.

Remember, when dividing with the same base, subtract the exponents. For example, $\frac{5^8}{5^6} = 5^2$

Remember, when raising to a power, multiply the exponents. For example, $(4^3)^5 = 4^{15}$

Applying Properties for Powers with the Same Base

➤ **Rewrite each expression as a single power.**

1. $6^4 \cdot 6^4$

2. $(-5^5)^2$

3. $\frac{2^9}{2^5}$

4. $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3^2$

5. $\frac{12^5 \cdot 12^7}{-12^4}$

6. $\left(\frac{7^5}{7^2}\right)^2$

➤ **Evaluate each expression.**

7. $\frac{4^8}{4^5}$

8. $(-10) \cdot (-10)^4$

9. $\left(\frac{(-3)^4}{(-3)^2}\right)^3$

➤ **What value of *x* makes the equation true?**

10. $\frac{8^x}{8^5} = 8^7$

11. $(-11)^x \cdot (-11)^4 = \frac{(-11)^{10}}{(-11)^3}$

12. $(6^x)^{10} = \frac{(6^{12})^2}{6^4}$

13. Explain how you solved for *x* in problem 12.

Day 11

Response and stimulus Have you ever gone from a dark room out into the sunshine? You respond by squinting your eyes. The brightness of the sun is called a **stimulus** and your reaction to it is called a **response**. All living things respond to a stimulus.

Growth You may think of growth as an increase in size. You have increased in size since you were born. **Growth** also refers to an increase in mass and to an increase in number of cells.

Reproduction The process of making more of the same kind of organism is called reproduction. Because all living things eventually die, reproduction allows life to continue.

Energy All living things take materials from their surroundings such as food, water, and gases. They use these materials to get energy. This energy is needed to carry out all of the life functions.

Cells A **cell** is the smallest unit of a living thing. It is the simplest structure that can carry out all of the functions described above. You'll learn more about cells in Unit 2.

VOCABULARY

stimulus - something that causes a response.

response - how an organism reacts to a stimulus.

growth - an increase in mass.

cell - the smallest unit of a living thing.

NTI 11

2.1 Is It Alive? Jones 8th Grade

Do you know how bread is made? One of the most important ingredients is yeast. Open a packet of yeast and you'll see a bunch of tiny, dried specks. If you drop those specks into a cup of warm water with a little sugar, they'll start to bubble and froth. If you look at the mixture under a microscope (Figure 2.1), you will see individual clumps of yeast growing and even multiplying! Is yeast a living organism? In this section, you'll learn what it means to be alive.

STUDY SKILLS

Make a list of all of the vocabulary terms in this section. For each term:

1. Write its definition, in your own words.
2. Use the term in a sentence.

What does it mean to be alive?

What is an organism?

An **organism** is an individual form of life. A tree is an organism and so is yeast. So are you. What makes something alive? As with many questions in science, the answer is not easy and is still argued among scientists. If you've ever had a cold or the flu, you're familiar with the effects of viruses. Viruses are very tiny things that have some of the characteristics of living things, but are not considered alive by many scientists.

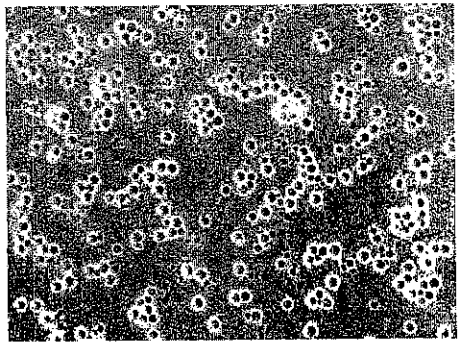

Figure 2.1: *Yeast magnified 100 times. Yeast is a living organism. Each tiny sphere is an individual organism.*

VOCABULARY

organism - an individual form of life.

The characteristics of living things

So what makes something alive? Having a set of rules is a good way to get closer to the answer. Biologists often use five basic rules to classify something as living or nonliving.

Five Characteristics of Living Things

1. Living things **respond** to their surroundings.
2. Living things **grow** and **develop**.
3. Living things are able to **reproduce**.
4. Living things **use energy**.
5. Living things are made of smaller building blocks called **cells**.

Is a barnacle alive?

A trip to the beach

One day at the beach, Zeke picked up one of many rocks that were covered in white bumps (Figure 2.2). He thought the rock would look nice in his marine aquarium so he brought it home and dropped it into his tank. One day, while watching the fish in his tank, Zeke got a surprise. The white bumps on the rock had sprouted tiny legs and were waving back and forth in the water. The rock was alive! (Actually, the white bumps were alive.)

Figure 2.2: *What are the white bumps covering this rock?*

Barnacles

Zeke's rock was covered with tiny organisms called *barnacles* (Figure 2.3). These creatures live in tide pools along the seacoast where waves crash and tides cause water to flow in and out. Inside its shell the barnacle can hold seawater to survive the many hours of drought at low tide. At high tide the shell opens and the barnacle begins to feed. Its long, comb-like legs sweep back and forth to catch tiny organisms called plankton.

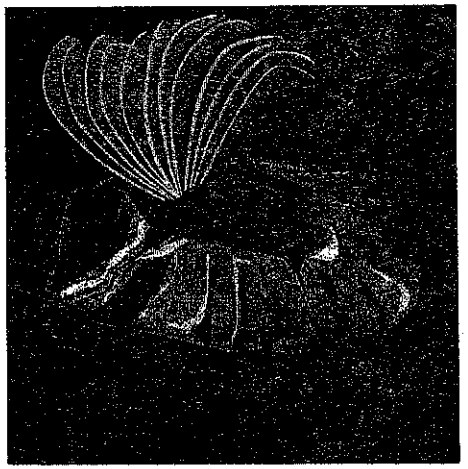

Figure 2.3: *Each bump is an individual barnacle. Barnacles feed by waving their legs back and forth.*

Is a barnacle alive? Let's use the five criteria to decide.

1. Barnacles **respond** to their environment by closing their shells at low tide, and opening them at high tide.
2. Barnacles **grow** and **develop**. They begin life as free-swimming creatures. Once they find a good spot, they "glue" themselves to a rock and form a shell.
3. Barnacles **reproduce**. After fertilization from a male barnacle, females hold the eggs in their shells until they hatch.
4. By waving their legs, barnacles capture food. They **use energy** from the food to move their legs, open and close their shells, and carry out all life processes.
5. If you examined the legs of a barnacle with a microscope you would see that they are made of individual **cells**.

Living things and types of energy

What is energy? You have read that living things use energy. **Energy** is sometimes defined as the ability to cause change or do work. There are many forms of energy (Figure 2.4). Any form can be converted into any other form. Living things can convert one form of energy into another.

Radiant energy *Radiant energy* is also known as electromagnetic energy. Light is made up of waves called electromagnetic waves. There are many different types of electromagnetic waves, including the light we see, ultraviolet light, x-rays, infrared radiation, radio waves, and microwaves. This is the type of energy that reaches Earth from the Sun and is captured by plants.

Chemical energy *Chemical energy* is energy stored in molecules. Energy stored by living things can be in this form. When molecules are rearranged, chemical energy is released. When animals eat plants, they use the chemical energy stored by the plants to move, grow, and reproduce.

Mechanical energy *Mechanical energy* is the energy an object has due to its motion or position. You store mechanical energy when you climb a hill. The energy is released when you go back down the hill.

Electrical and thermal energies *Electrical energy* is carried by the flow of electric current. Nerve impulses in your body are electrical energy. *Thermal energy* flows whenever there is a temperature difference. Heat is a form of thermal energy. Thermal energy flows from your hand to any cooler object that you touch, such as ice cream.

Nuclear energy *Nuclear energy* results from splitting or combining the nuclei of atoms. Nuclear energy gained by splitting uranium atoms is converted to electrical energy in power plants. Nuclear energy from combining hydrogen atoms is how the Sun makes energy.

VOCABULARY

energy - the ability to cause change or do work.

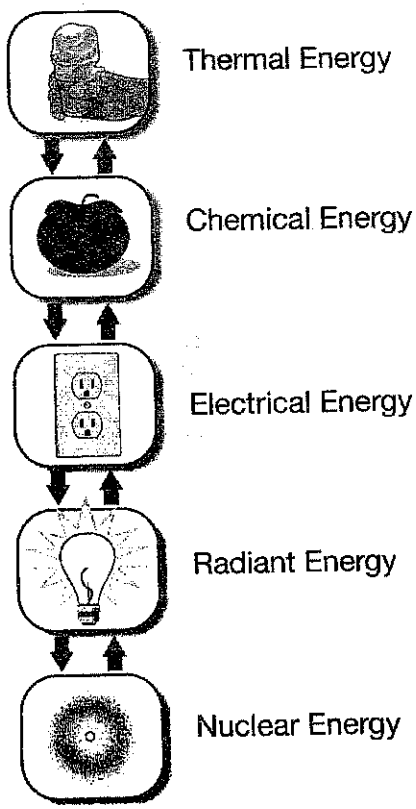

Figure 2.4: *There are many forms of energy. Energy can be converted from one form to another.*

Jones 8th grade Science

NTI Day 11-Living Things

Materials

- CPO life science Ebook that is uploaded into google classroom
- 5-6 question quiz

Task

- Students read pages 27-31 in chapter 2.
- Students complete a 5 question quiz.

Quiz-Section 2.1

1. An ____ exhibits the characteristics of life.

    a) Stimuli
    b) Organism
    c) Response
    d) Energy
    e) Cells

2. Organisms react to environmental ____, such as heat, sunlight and nutrient availability.

    a) Stimuli
    b) Organism
    c) Response
    d) Energy
    e) Cells

3. An expected ____ to touching a hot stove is to flinch away from the heat.

    a) Stimuli
    b) Organism
    c) Response
    d) Energy
    e) Cells

4. All living things are made up of ____, the basic unit of life.

a) Stimuli
b) Organism
c) Response
d) Energy
e) Cells

5. Life requires ____ in different forms to perform functions.

a) Stimuli
b) Organism
c) Response
d) Energy
e) Cells

Maynard/Robinette: DAY 11

Manifest Destiny: The idea behind American's westward expansion.

The phrase Manifest Destiny was first used in 1845. It described the belief that the United States was destined by God to expand its control across the entire North American continent. The idea helped drive the country's westward expansion.

Louisiana Purchase

The U.S. population exploded in the first half of the 19th century, because of a high birth rate and immigration. It jumped from about 5 million people in 1800 to more than 23 million by 1850. Such rapid growth drove millions of Americans westward in search of new land. The desire for fresh opportunities also was intensified by two economic depressions in 1819 and 1839.

In 1803, President Thomas Jefferson helped accelerate westward expansion with the Louisiana Purchase. This land deal with France added some 828,000 square miles to American control, essentially doubling the young country's territory. Jefferson also sponsored the western expedition of Lewis and Clark in 1805-07. This exploratory mission gave the U.S. government a better understanding of who and what lay west of the Mississippi River.

Jefferson also set his sights on obtaining Spanish Florida. Negotiations with Spain finally concluded in 1819 under President James Monroe. Critics of that treaty, though, faulted the Monroe administration. They argued the United States gave up what they considered legitimate American claims on Texas.

Texas Independence

Cries for an American annexation of Texas increased after Mexico won its independence from Spain in 1821. Fearing an American takeover, the Mexican government suspended U.S. immigration into Texas nine years later. Nonetheless, there were already more white settlers in Texas than Hispanic ones.

Texas fought for and won its independence from Mexico in 1836, and its new leaders attempted to join the United States. Presidents Andrew Jackson and Martin Van Buren resisted such calls, however. Their concerns were twofold: a potential war with Mexico and political opposition from anti-slavery groups. The latter believed calls for annexation were part of an effort to expand slavery westward.

In 1840, John Tyler won the presidency and moved forward with plans for annexing Texas. An agreement concluded in April 1844 made Texas eligible for admission as a U.S. territory, and possibly later as one or more states. Many lawmakers opposed the move. However, the proannexation candidate James K. Polk won the 1844 election, and Tyler then pushed the bill through Congress before he left office.

The Coining of "Manifest Destiny"

Texas was admitted to the Union as a state in December 1845. By that time, the idea had taken hold that the United States would control territory all the way to the Pacific Ocean. A majority of Americans now accepted such westward expansion as a given.

The phrase "Manifest Destiny" emerged as a popular expression of this mindset. It first appeared in an editorial published in the July-August 1845 issue of the Democratic Review. The writer urged "the fulfillment of our manifest destiny to overspread the continent allotted by Providence for the free development of our yearly multiplying millions." In other words, it was God's will for the United States to take over North America. Similar articles were published in the New York Morning News and other publications. They were authored by Democratic Review editor John O'Sullivan, who is widely credited with having created the phrase.

Oregon Territory

By that time the Oregon Territory had become another focus in Americans' westward push. An 1842 treaty between Great Britain and the United States partially resolved the question of where to draw the Canadian border. However, it left open the question of the Oregon Territory, which included what is today Oregon, Idaho, Washington State and most of Canada's British Columbia.

President Polk was an enthusiastic supporter of Manifest Destiny, who had won the 1844 election with the slogan "54° 40' or fight!" (That latitude 54° 40' was a reference to the potential northern Polk had called U.S. claims to Oregon "clear and unquestionable" in his inaugural address.

As president, though, Polk wanted to get the issue resolved. He was more concerned with acquiring California from Mexico. In mid-1846, his administration agreed to a compromise whereby Oregon would be split along the 49th parallel, narrowly avoiding a conflict with Britain.

Impact of Manifest Destiny

By the time the Oregon question was settled, the United States had entered into all-out war with Mexico. The conflict was driven by the spirit of Manifest Destiny, though many Americans opposed it as a land grab by their government. The Treaty of Guadalupe Hidalgo ended the Mexican-American War in 1848. It added 525,000 square miles of U.S. territory, including all or parts of what is now California, Arizona, Colorado, New Mexico, Nevada, Utah and Wyoming.

Manifest Destiny might have described a lofty ideal, but it came with a high price for those who stood in its way. Many Native American and Hispanic occupants were treated brutally, and driven from their lands by white settlers backed by U.S. military force.

U.S. expansion also fueled the growing debate over slavery. It raised the pressing question of whether new states being admitted to the Union would allow slavery or not. It was a clash of beliefs that in 1861 would lead to the bloodiest war in U.S. history — the Civil War.

Answer the following and return to either Mr. Maynard or Mr. Robinette:

Day 11

1. How did President Thomas Jefferson's actions affect Manifest Destiny?
    a. He slowed westward expansion when two economic depressions occurred during his presidency
    b. He sped up westward expansion with the Louisiana Purchase and the expedition of Lewis and Clark
    c. He slowed down westward expansion by allowing Spain to keep Texas when he negotiated to obtain Florida.
    d. He sped up westward expansion by signing a treaty with Great Britain regarding the Oregon Territory

2. According to the article, why did Presidents Andrew Jackson and Martin Van Buren resist calls for the annexation of Texas?
    a. They worried that Americans would protest annexing California as well.
    b. They worried that many Americans would see it as a grab for land.
    c. They feared that Mexico would suspend immigration into the country.
    d. They feared war with Mexico and the opposition of anti-slavery groups.

3. Read the selection from the section "The Coining of Manifest Desitny."

    By that time, the idea had taken hold that the United States would control territory all the way to the Pacific Ocean. A majority of Americans now accepted such westward expansion as a given.

    a. gift
    b. honor
    c. certainty
    d. surprise

4. Write a short paragraph that explains the central idea of the article. Use at least two details from the article to support your response.